

# The Status and Conservation of the Great Bustard in Northeast China

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**Abstracts** There are two subspecies of Great Bustards in China: *Otis tarda tarda*, a rare resident of in Kashi region, Tianshan Mountains and Turpan region in Xinjiang Uygur Autonomous Region in northwestern China. The other is *O. t. dybowskii* found in northeastern China. In 840 km<sup>2</sup> survey area 150 Great Bustards were found. The average density was 0.81 birds/ km<sup>2</sup>. Reasons for the decline of Great Bustard were analyzed. Conservation measures for the Great Bustards are recommended.

**Key words:** Great Bustard, Distribution, Conservation, China

## Distribution and Population

There are two subspecies of Great Bustards in China: *Otis tarda tarda*, a rare resident of in Kashi region, Tianshan Mountains and Turpan region in Xinjiang Uygur Autonomous Region in north-western China. The other is *O. t. dybowskii* found in northeastern China (Cheng Tso-hsin 1987).

According to literature records, Great Bustards had a wide distribution in north-eastern China prior to the 1960s. They were found from Songnen plains westwards to the steppes of HulunBeir, Horqin and Xilingol in Inner Mongolia, and eastwards to the Wanda Mountains and Xingkai Lake (called Lake Khanka in Russian) (Vorobiev 1954). The nest and eggs of Great Bustards had been seen in Zhangshiya, Shijiazhuang City, Hebei Province in early 1960s, which is the furthest of its distribution to the south. They were also found in nearby areas in Mongolia and Russia (Dement'ev et al. 1966-1970). These bustards wintered mainly in northern Jiangsu and Anhui Provinces and at the Lake Poyang in Jiangxi Province. Sometimes they were also found at Lake Caohai of Guizhou Province. In winters with light snowfall, some individuals might not be migratory and stayed at their breeding grounds in western part of North-eastern China. During migration they passed through northern China.

There are almost no written records of the past population. It could only be by interviewing hunters and local people. According to local villagers living near Harbin, some Great Bustard were still breeding at some unclaimed lands in the 1950s. There has been no breeding records since the early 1960s but flocks of 40-50 birds could still be seen during the migration. At that time most villagers had no firearms and one few Great Bustards were hunted with snares. Since the 1960s the number of Great Bustards declined due to increased

human population and activities, oil field exploitation and more intensive hunting.

Only three isolated breeding populations exist in North East China by 1980s: the areas from Mingstui to Zhaodong east of the Nenjiang River, the Horqin Steppes west of Nenjing River and southern part of Hulun Beir steppes on the western slope of Da xing'an Mountains (Xin Barag-Zuoqi County). The number is still declining. The Horqin-Youyi-Zhongqi County to Temeeji of southern part of Zhalait-Qi County and Beidagang at the Zhenlai County of Jilin Province.

According to a survey done by the Wildlife Research Institute of Heilongjiang Province during the migration peak in April in the late 1980s, the five counties and cities in western Heilongjiang had a average density of 0.0551 Great Bustards per square km. and in Hulun Beir League was only 0.0137 birds/km<sup>2</sup>. However, the above survey was done during the spring migration and the main present distribution at Xing'an League was not covered by the survey. In summer of 1992 our team has surveyed Temeeji at Zhalait-Qi County and the nearby Horqin-Youyi-Qianqi County and Beidagang at Zhenlai County. In an area of about 840 km<sup>2</sup> we found 150 Great Bustards. The average density was 0.18 birds/km<sup>2</sup>. There were nearly 20 nests at Temeeji. We have carried out similar surveys at Temeeji again in 1996 and 8 nests were known at that time. However, among these 8 nests, eggs from two nests were smashed by domestic cattle and sheep, eggs from one nest had been collected by a shepherd and nestling of another nest had also been taken away. The best estimation of breeding success of Great Bustards at Temeeji this year is only 50%.

## Migration route

Only a few Great Bustards are non-migratory. Usually

the migratory route passes Beidaihe in Hebei Province. Some birds in migration can be seen near Harbin, Siping district of Jilin Province and Chaoyang district of Liaoning Province. two male birds were seen at Hulan County, towards to north of Hanbin on September 26, 1996.

The known wintering areas of Great Bustard in China are Pixian County (20 birds on November 8, 1985, Donghai County (6 birds on November 20, 1985), Sihong County (20 birds on December 5, 1985), Jianning County (1 birds on December 23, 1985) in Jiangsu Province, Guzhen (108 birds on January 29, 1985) and Gongzhuzhou (300 birds in February 1986) in Anhui Province, Lake Caohai in Guizhou Province (68 birds in December 1987) (Li Lin et al. 1991), and Poyang Lake in Jiangxi Province (106 birds in February 1986) (Ding Tieming 1988). The wintering birds might also include breeding birds from Mongolia and Russia but we cannot tell because on banding has been done on those birds. In the wintering areas, the Great Bustards will remain at the same locations if there is no human disturbance, they may stay very long if there is sufficient food supply. Usually they stay in the wintering grounds for about 3 months and start their migration at the end of February or early March.

### Reasons for the Decline of Great Bustard

Apart for Human being, the only predators for Great Bustards in western part of Northeast *Circus cyaneus* and Eastern Marsh Harriers *Circus spilonotus* prey on eggs and nestling, but it seems they are mostly hunting the more numerous nesting Eurasian Curlews *Numericus arquata* and Lapwings *Vanellus vanellus*. Wolves and foxes are now very rare in the area so the threat is very low.

The biggest threats to the Great Bustards are from human beings, human activities has seriously affected the habitats for Great Bustard.

Mass immigration from northern China (especially Shandong Province) to Northeast China had turned some of the remaining steppes and grasslands into farmlands and the Great Bustards lost their last breeding ground at the eastern Songnen Plains. The development of oil fields at Daqing destroyed the breeding grounds at central Songnen Plains. Western Songnen Plains is much wetter and natural population of Great Bustards has always been low. Human activities has easily eliminated the last breeding pairs. Now Horqin steppes of western Northeast China becomes the major breeding ground but it is facing the following problems:

Increase in human population and land reclamation.

The small hills with the Great Bustards favor are also usually the first being reclaimed by human.

Excess animal husbandry in the grassland. The number of livestock is already over the natural carrying capacity and the grassland is degrading. The breeding habitats of Great Bustards is transforming to unfavorable habitats.

Eggs and nests of Great Bustards may be trampled by sheep and cattle.

Collection of eggs by local people and poaching. The poachers are mainly not local people but truck drivers.

Medical herb collection and grass cutting. Many local people now dug up medical herb in spring for sale and they also cut grass to store as animal feed in winter. Such activities exposed the breeding sites of the Great Bustards.

### Conservation Measures Recommended

After a detailed survey at the Great Bustard habitats, establish nature reserve in their main breeding and wintering areas.

Promote conservation education. More signs and posters to let local people know the importance of wildlife conservation. Conservation should also be taught at schools.

Regulate the increase of immigration in habitats important to Great Bustards. Improve the living standard of local people.

Strengthen law enforcement to stop poaching and control of firearms. Control human activities during the breeding season of Great Bustards.

Stop land reclamation at the Great Bustard sites and try to recover some degraded grasslands.

International cooperation on the conservation and research of the Great Bustard such as banding of Great Bustards.

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